

**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**Claims 1-12 (Canceled)**

**Claim 13 (Original):** A manufacturing method for an organic/inorganic hybrid hydrogel comprising the steps of:

preparing a homogeneous solution containing (A') which corresponds to a monomer of a water soluble polymer (A), a water swelling clay mineral (B) which can be homogeneously dispersed in water, and water (C); and

polymerizing the monomer (A') under the presence of the clay mineral (B).

**Claim 14 (Previously Presented):** A manufacturing method for an organic/inorganic hybrid hydrogel according to claim 13, wherein said homogeneous solution containing (A'), (B), and (C) further comprises an organic solvent which is miscible with water.

**Claim 15 (Original):** A manufacturing method for an organic/inorganic hybrid hydrogel according to claim 13, wherein the weight ratio of the water swelling clay mineral (B) to the monomer (A') of the water soluble polymer (A) is within a range of 0.01 to 10.

**Claim 16 (Original):** A manufacturing method for an organic/inorganic hybrid hydrogel according to claim 13, wherein said monomer (A') of the water soluble polymer (A) includes acrylamide derivatives and/or methacrylamide derivatives.

**Claim 17 (Original):** A manufacturing method for an organic/inorganic hybrid hydrogel according to claim 13, wherein said organic/inorganic hybrid hydrogel has a critical temperature (Tc), at which the organic/inorganic hybrid hydrogel changes reversibly between the transparent and swollen state at a lower temperature of the critical temperature and an opaque and shrunken state at a higher temperature of the critical temperature.

**Claim 18 (Original):** A manufacturing method for an organic/inorganic hybrid hydrogel according to claim 17, wherein the volume ratio of said organic/inorganic hybrid hydrogel in water below the critical temperature to that above the critical temperature is equal to 10 or more.

**Claim 19 (Original):** A manufacturing method for an organic/inorganic hybrid hydrogel according to claim 13, wherein said organic/inorganic hybrid hydrogel provided by said manufacturing method has a tensile load at break of more than 0.1N, a tensile elongation at break of more than 100%, and a load at a tensile elongation of 100% is more than 0.01N in the case of using said organic/inorganic hybrid hydrogel, having a water content defined by  $\{C/(A+B)\}$  is 600 to 1000 weight %, for a sample which has an initial sectional area is  $0.237 \text{ cm}^2$ .

**Claim 20 (Original):** A manufacturing method for an organic/inorganic hybrid hydrogel according to claim 13, wherein the water content defined by  $\{C_{max}/(A+B)\}$  of said organic/inorganic hybrid hydrogel in the equilibrium swollen state is equal to or more than 2000 weight %.

**Claim 21 (Original):** A manufacturing method for an organic/inorganic hybrid hydrogel according to claim 13, wherein a total transmission in the visible range of said organic/inorganic hybrid hydrogel is more than 80 %, when a 25 mm thick sample of said organic/inorganic hydrogel containing water (C) at 10 times (weight basis) higher than the content of an polymer (A) is used.